Draft Individual Review Form

Proposal number: 2001-G205-1 Short Proposal Title: Rice in the Delta

1a) Are the objectives and hypotheses clearly stated?

Provide detailed comments in support of your conclusion

No. The only project objective that is clearly stated is the goal of converting 10,000 acres of corn production to rice cultivation. Other objectives are discussed under two sections – Approach 1-4 and Hypotheses being tested 1-4. A subsection entitled "Specific Objectives" is included under "TV. Waterbird Habitat Quality".

1b1) Does the conceptual model clearly explain the underlying basis for the proposed work?

Provide detailed comments in support of your conclusion

Yes, the underlying scientific basis is clearly presented in the conceptual model, project design, practices, analysis, and interpretation. Mr. Zirkle's idea of replacing corn production with rice cultivation in the Delta is compelling and addresses both ecological and economic factors. The proposal would be easier to understand if the conceptual model was not split between Section C and Attachment B.

1b2) Is the approach well designed and appropriate for meeting the objectives of the project?

Provide detailed comments in support of your conclusion

Yes and no. The actions outlined in the proposal are well developed and appropriate for meeting project objectives. However, the scale of the project is too large given our current understanding of the proposed actions and ability to accurately predict their outcomes.

1c1) Has the applicant justified the selection of research, pilot or demonstration project, or a full-scale implementation project?

Provide detailed comments in support of your conclusion

No. This is the weakest component of this proposal. From my perspective 10,000 acres is a full-blown implementation project. The proposed cost of the program, the uncertainty of the expected benefits, and the large-scale involvement of private landowners all suggest starting with a much smaller project. A more modest project could identify adverse affects early on and provide greater flexibility in developing solutions.

1c2) Is the project likely to generate information that can be used to inform future decision making?

Provide detailed comments in support of your conclusion

Yes. This project will provide answers to the following questions:

- Does rice cultivation substantially decrease the rate of soil subsidence?
- Will water quality improve once fields are converted from corn to rice production?
- Do harvested rice fields in the Delta provide better quality habitat (feed and cover) to waterfowl than harvested cornfields?
- Is rice an economically sustainable crop for the Delta?

2a) Are the monitoring and information assessment plans adequate to assess the outcome of the project?

Provide detailed comments in support of your conclusion

Yes, the proposed monitoring program is excellent. Each objective listed has a well developed, specific, and detailed monitoring protocol. This data should provide adequate information to evaluate expected outcomes. Why not monitor pesticide levels in the release water as a component of the data collection?

2b) Are data collection, data management, data analysis, and reporting plans well-described, scientifically sound and adequate to meet the proposed objectives?

Provide detailed comments in support of your conclusion

Yes and no. Data collection, analysis, handling and storage are described for the four main components of the project (subsidence, economic viability, water quality, and waterbird usage. Ducks Unlimited is proposing to collect water samples every three weeks during the growing season and measure temperature, salinity, pH, dissolved oxygen, biological oxygen demand, total organic carbon and bromide. To make this project wildlife-friendly for both fish and fowl the pesticide levels in the discharge water need to be tested. This proposal is missing an opportunity to compare actual Pesticide Use Reports (known types, amounts, date applied, and method of application) filed with the county agricultural commissioner's office with detectable pesticide levels in the water samples.

3) Is the proposed work likely to be technically feasible?

Provide detailed comments in support of your conclusion

No. I don't believe this proposal is technically feasible simply on the basis of size. This proposal requires the commitment of 10,000 acres of private land conversion (land leveling) within three years. My experience is that farmers are generally conservative in the adoption of new agricultural practices and this is an unrealistic objective within the stated timeline.

4) Is the proposed project team qualified to efficiently and effectively implement the proposed project? Provide detailed comments in support of your conclusion

Yes. Project proponents are exceptionally well qualified. Project staff has both the technical expertise and field experience to implement this type of project.

Miscellaneous comments

Section H. Terms and Conditions is missing from this proposal.

| Overall Evaluat Summary Ratin | |
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| ☐ Excellent | This would make an excellent pilot/demonstration project if scaled back to three 500-acre sites. First, Delta farmers must demonstrate that growing rice is environmentally advantageous to cultivating corn. Second, the environmental benefits must be measured and assigned a fair market value (if rice was commercially competitive in the Delta we wouldn't be evaluating this proposal). Once these issues are addressed large-scale implementation may be appropriate. |
| □ Very Goo□ Good■ Fair□ Poor | |